

Notice of Allowability

Application No.

09/829,961

Examiner

Thomas E. Shortledge

Applicant(s)

TAVOR, ONN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Remarks, filed 08/08/2006.
2. ☒ The allowed claim(s) is/are 1,2,6,11,12 and 16-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. This communication is in response to Remarks, filed 08/08/2006.
2. Claims 1, 2, 6, 11, 12 and 16-27 are pending. Claims 3-5, 7-10, and 13-15 have been cancelled. Claims 1, 18, and 21-27 are independent and have been amended.
3. The 35 U.S.C. 101 non-statutory rejections of claims 1, 2, 6, 11, 12 and 16-27 have been withdrawn in accordance with the applicant's amendments.

Allowable Subject Matter

4. Claims 1, 2, 6, 11, 12 and 16-27 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 1, 18 and 21 recite a program storage device readable by a computer, tangibly embodying a program of instructions executable by the computer to perform the following steps for supplying comparative information about at least two specified items out of a group of items belonging to any one category, each item of the group having a corresponding data entry in the computer's storage, the data entry including a name, at least one topic and information associated with each topic, said information including at least one value, the method comprising, retrieving from storage data entries corresponding to the specified items, among said retrieved entries comparing

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information associated with like topic, and constructing one or more natural language sentences that reflect results of said retrieving and said comp by steps. The steps including providing a plurality of natural language sentence templates, whereby each possible combination of a topic and category of items is associated with a particular template, and inserting names, topics and values resulting from said comparing into appropriate respective fields is an appropriate one of said templates. Wherein not all stored data entries of any group necessarily include identical topics and said comparing includes comparing values associated with like topics, if any; wherein said comparing includes, for any topic common to at least two of the retrieved entries. First finding within said at least two of the retrieved entries any values that re mutually equal, grouping all items that correspond to any thus identified value together as a similarity group, noting their names and associating said group with said common topic and with said equal value, and if no equal values are found, noting the names and values of all corresponding items, in association with said common topic. Wherein said constructing includes constructing a natural language statement for each of said topics, which reflects respective results of the above substeps. The method further comprising identifying any topic that is not common to any two or more of the retrieved entries, and noting one or more values associated with the thus identified topic in the respective entry, together with the respective name and constructing a natural language statement that includes the name, topic and values noted in the above substep. Maimon et al. (US 6,374,270) teach gathering information in the form of free form text documents, reducing the information to a formatted database, analyzing the contents of the

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database and reorganizing the database in a format suitable for drawing inferences with respect to the contents thereof and synthesizing inferences based upon the contents of the reorganized database. Maimon et al. do not teach nor fairly suggest wherein not all stored data entries of any group necessarily include identical topics and said comparing includes comparing values associated with like topics, if any; wherein said comparing includes, for any topic common to at least two of the retrieved entries. First finding within said at least two of the retrieved entries any values that are mutually equal, grouping all items that correspond to any thus identified value together as a similarity group, noting their names and associating said group with said common topic and with said equal value, and if no equal values are found, noting the names and values of all corresponding items, in association with said common topic. Wherein said constructing includes constructing a natural language statement for each of said topics, which reflects respective results of the above substeps. The method further comprising identifying any topic that is not common to any two or more of the retrieved entries, and noting one or more values associated with the thus identified topic in the respective entry, together with the respective name and constructing a natural language statement that includes the name, topic and values noted in the above substep.

Claim 22 recites a computer based method for supplying comparative information about at least two specified items out of a group of items belonging to any one category, each item of the group having a corresponding data entry in the computer's storage, the data entry including a name, at least one topic and information associated with each

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topic, said information including at least one value, the method comprising retrieving from storage data entries corresponding to the specified items, among said retrieved entries comparing information associated with like topics, and constructing one or more natural language sentences that reflect results of said retrieving and said comparing. Said comparing steps including providing a plurality of natural language sentence templates, whereby each possible combination of a topic and category of items is associated with a particular template, and inserting names, topic and values resulting from said comparing into appropriate respective fields in an appropriate one of said templates. Wherein any topic is associated with a range of values, extending between two extreme values, and with a numerical scale whose minimum and maximum values correspond to respective extreme values of the range, such a topic being a fuzzy topic; in any data entry, the information associated with any fuzzy topic includes a position number within the respective scale, which number corresponds to a value within the respective range and said comparing includes with respect to any fuzzy topic, comparing the respective position numbers. Wherein said comparing includes, with respect to any fuzzy topic, finding among said retrieved entries the highest and lowest position values, dividing the values between them into one or more identifiable subranges, associating each item with one of said subranges according to the corresponding position value and grouping all items according to the corresponding position value, dividing the values between them into one or more identifiable subranges, associating each item with one of said subranges according to their associated subranges, noting their respective names and noting for each group its

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respective subrange and the common topic; and wherein any fuzzy topic is further associated with a set of relational words, appropriate to its range of values, and wherein said constructing includes constructing, for any noted topic, natural language statements containing noted names, and relational words that reflect positions of respective noted subranges relative to said highest and lowest position values or relative to said scale. Maimon et al. teach gathering information in the form of free form text documents, reducing the information to a formatted database, analyzing the contents of the database and reorganizing the database in a format suitable for drawing inferences with respect to the contents thereof and synthesizing inferences based upon the contents of the reorganized database. Maimon et al. do not teach nor fairly suggest wherein any topic is associated with a range of values, extending between two extreme values, and with a numerical scale whose minimum and maximum values correspond to respective extreme values of the range, such a topic being a fuzzy topic; in any data entry, the information associated with any fuzzy topic includes a position number within the respective scale, which number corresponds to a value within the respective range and said comparing includes with respect to any fuzzy topic, comparing the respective position numbers. Wherein said comparing includes, with respect to any fuzzy topic, finding among said retrieved entries the highest and lowest position values, dividing the values between them into one or more identifiable subranges, associating each item with one of said subranges according to the corresponding position value and grouping all items according to the corresponding position value, dividing the values between them into one or more identifiable subranges, associating each item with one of said

subranges according to their associated subranges, noting their respective names and noting for each group its respective subrange and the common topic; and wherein any fuzzy topic is further associated with a set of relational words, appropriate to its range of values, and wherein said constructing includes constructing, for any noted topic, natural language statements containing noted names, and relational words that reflect positions of respective noted subranges relative to said highest and lowest position values or relative to said scale.

Claims 23 and 25 recite a computer based method for supplying comparative information about at least two specified items out of a group of items belonging to any one category, each item of the group having a corresponding data entry in the computer's storage, the data entry including a name, at least one topic and information associated with each topic, said information including at least one value. The method comprises the steps of retrieving from storage data entries corresponding to the specified items, among said retrieved entries comparing information associated with like topics, and constructing one or more natural language sentences that reflect results of said retrieving and said comparing. The comparing steps includes providing a plurality of natural language sentence templates, whereby each possible combination of a topic and category of items is associated with a particular template and inserting names, topics and values resulting from said comparing into appropriate respective fields in an appropriate one of said templates. Wherein said constructing further includes combining a plurality of said statements having at least one item in common into a

sentence, using connective words appropriate to the comparison-based relation between the respective statements. Wherein said constructing further includes providing a library of connective phrases; selecting one or more phrases from said library at random and concatenating a plurality of sentences that relate to a common category, whereby they are augmented by said selected phrases. Maimon et al. teach gathering information in the form of free form text documents, reducing the information to a formatted database, analyzing the contents of the database and reorganizing the database in a format suitable for drawing inferences with respect to the contents thereof and synthesizing inferences based upon the contents of the reorganized database. Maimon et al. do not teach nor fairly suggest wherein said constructing further includes combining a plurality of said statements having at least one item in common into a sentence, using connective words appropriate to the comparison-based relation between the respective statements. Wherein said constructing further includes providing a library of connective phrases; selecting one or more phrases from said library at random and concatenating a plurality of sentences that relate to a common category, whereby they are augmented by said selected phrases.

Claim 26 recites a computer program product comprising a computer useable medium having computer readable program code embodied therein for supplying comparative information about at least two specified items out of a group of items belonging to any one category, each item of the group having a corresponding data entry in the computer's storage, the data entry including a name, at least one topic and

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information associated with each topic, said information including at least one value, the computer program product comprising: computer readable program code for causing the computer to retrieve from storage data entries corresponding to the specified items; computer readable program code for causing the computer to compare, among said retrieved entries, information associated with like topics; and computer readable program code for causing the computer to construct one or more natural language sentences that reflect results of said receiving and said comparing, by steps including: providing a plurality of natural language sentence templates, whereby each possible combination of a topic and category of items is associated with a particular template, and inserting names, topics and values resulting from said comparing into appropriate respective fields in an appropriate one of said templates. Wherein any topic is associated with a range of values, extending between two extreme values, and with a numerical scale whose minimum and maximum values correspond to respective extreme values of the range, such a topic being a fuzzy topic; in any data entry, the information associated with any fuzzy topic includes a position number within the respective scale, which number corresponds to a value within the respective range. Said comparing includes, with respect to any topic, comparing the respective position numbers. Wherein said comparing includes, with respect to any fuzzy topic, finding among said retrieved entries the highest and lowest position values, dividing the values between them into one or more identifiable subranges, associating each item with one of said subranges according to the corresponding position value and grouping all items according to their associated subranges, noting their respective names and noting for

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each group its respective subrange and the common topic. Wherein any fuzzy topic is further associated with a set of relational words, appropriate to its range of values, and wherein said constructing includes constructing, for any noted topic, natural language statements containing noted names, and relational words that reflect positions of respective noted subranges relative to each other or relative to said highest and lowest position values or relative to said scale. Maimon et al. teach gathering information in the form of free form text documents, reducing the information to a formatted database, analyzing the contents of the database and reorganizing the database in a format suitable for drawing inferences with respect to the contents thereof and synthesizing inferences based upon the contents of the reorganized database. Maimon et al. do not teach wherein said comparing includes, with respect to any fuzzy topic, finding among said retrieved entries the highest and lowest position values, dividing the values between them into one or more identifiable subranges, associating each item with one of said subranges according to the corresponding position value and grouping all items according to their associated subranges, noting their respective names and noting for each group its respective subrange and the common topic. Wherein any fuzzy topic is further associated with a set of relational words, appropriate to its range of values, and wherein said constructing includes constructing, for any noted topic, natural language statements containing noted names, and relational words that reflect positions of respective noted subranges relative to each other or relative to said highest and lowest position values or relative to said scale.

Claim 27 recites a computer program product comprising a computer useable medium having computer readable program code embodied therein for supplying comparative information about at least two specified items out of a group of items belonging to any one category, each item of the group having a corresponding data entry in the computer's storage, the data entry including a name, at least one topic and information associated with each topic, said information including at least one value, the computer program product. The program product comprises a computer readable program code for causing the computer to retrieve from storage data entries corresponding to the specified items; computer readable program code for causing the computer to compare, among said retrieved entries, information associated with like topics, and computer readable program code for causing the computer to construct one or more natural language sentences that reflect results of said retrieving and said comparing, by steps including: providing a plurality of natural language sentence templates. Whereby each possible combination of a topic and category of items is associated with a particular template, and inserting names, topics and values resulting from said comparing into appropriate respective fields in an appropriate one of said templates. Wherein said constructing further includes combining a plurality of said statements having at least one item in common into a sentence, using connective words appropriate to the comparison-based relation between the respective statements; and wherein said constructing further includes providing a library of connective phrases; selecting one or more phrases from said library at random; and concatenating a plurality of sentences that relate to a common category, whereby they are augmented by said

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selected phrases. Maimon et al. teach gathering information in the form of free form text documents, reducing the information to a formatted database, analyzing the contents of the database and reorganizing the database in a format suitable for drawing inferences with respect to the contents thereof and synthesizing inferences based upon the contents of the reorganized database. Maimon et al. do not teach wherein said constructing further includes combining a plurality of said statements having at least one item in common into a sentence, using connective words appropriate to the comparison-based relation between the respective statements; and wherein said constructing further includes providing a library of connective phrases; selecting one or more phrases from said library at random; and concatenating a plurality of sentences that relate to a common category, whereby they are augmented by said selected phrases.

Claims 2, 6, 11, 12, 16, 17, 19 and 20 are allowable since they depend from the above claims.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E. Shortledge whose telephone number is (571)272-7612. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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